SDT Meeting #1
GSFC Nov 19-20 2012

Notes

Action Items
- Scott Gaudi provide background starlight number to project
- What heater level is need during servicing to keep telescope at survival temperature?
- Chris Hirata to assess performance at diffraction limits from 1.0 to 1.5 microns
- Project to study GEO vs HEO orbit in terms of radiation and delta-V requirements
- Project telescope team to further study baffles
- Evaluate cost of adding IFU
- Study of coronagraph performance in GEO

Agreements
- Telescope temp to be chosen at next meeting.
    Survival temperature is 40F (277K). +5K for safety = 282K
    Desire is to run at 250K
- Red limit of 2.0 microns for now
- Grism instead of prism: 1.3 to 2.0 microns
- 6x3 detectors @ 0.11 "/pixel
- Diffraction limited at 1.2 microns
- Observatory to work at GEO and L2
- Preliminary baseline GEO orbit at 28 deg inclination, with study also of L2 orbit performance.
- Baseline baffles with 30% obscuration, but needs studies
- Coronagraph operations costed as extra 1 year of mission operation
- Baseline simpler (Lyot, shaped pupil) coronagraph design

Open meeting at AAS
- Please provide a single slide highlighting science and delta from DRM1 (speakers)
- Encourage community to present science ideas
    - ask David Penny to present on microlensing
    - "Open microphone"

January Meeting
- Welcome inputs on alternative designs (Ball, JPL, other suppliers)

WL (Hirata)
Shapelets of galaxies. Higher order moments. DS
Deep fields with up to 300 galaxies / arcmin2 JR
What modes do we need to measure and what ones can we ignore? Which drive the requirements.

BAO (Wang)
OIII line to z~3
bias 0.9 to 1.4 current

K band (discussion)
BAO pushes to longer wavelength than Euclid
WL not much
IR survey - significant

SNe (Perlmutter / Baltay)

Content
Guyon suggestion to add lenses over each detector to reduce the scale of the instrument
What makes life easier
- smaller pixels
- smaller field
- smaller wavelength range for prism
- diffraction limit at 1.5 microns

Clusters (Postman)